REVIEW OF NEW OR MODIFIED AIR EMISSION SOURCES

Purpose

This Meteorology and Air Quality Group (MAQ) procedure describes the review of new and modified projects to determine whether they have regulatory requirements under the Clean Air Act or DOE Orders 450.1 and 5400.5 as required by the Air Quality Reviews Laboratory Implementation Requirements (LIR), LIR404-10-01.

Scope

This procedure governs the activities of all Air Quality personnel involved in determining and documenting the requirements for new or altered emission or direct penetrating radiation sources under the Clean Air Act or DOE Orders.

In this procedure

This procedure addresses the following major topics:

Signatures

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12/16/04

General information about this procedure

Attachments

This procedure has the following attachments:

Number	Attachment Title	No. of pages
1	Flow Chart of New Project Review (NPR) Process	1

History of revision

This table lists the revision history and effective dates of this procedure.

Revision	Date	Description Of Changes
0	12/5/00	New document.
1	3/18/02	Added steps for involvement of DPRNET team leader to review for compliance with DOE Orders 450.1 and 5400.5.
2	12/14/04	Address change from ESH-ID system to PR-ID system, issuance of Title V Operation Permit, and use of new internal database.

Who requires training to this procedure?

The following personnel require training before implementing this procedure:

- Regulatory Review and Permitting Team Leader
- DPRNET Team Leader
- MAQ personnel assigned to perform this procedure
- Rad NESHAP Team Leader.

Training method

The training method will be "**self-study**" (**reading**) and will be documented in accordance with the procedure for training (MAQ-024).

General information, continued

Definitions specific to this procedure

Modification: defined in 20.2.72 NMAC as any physical change in, or change in the method of operation of, a stationary source which results in an increase in the potential emission rate of any regulated air contaminant emitted by the source or which results in the emission of any regulated air contaminant not previously emitted, but does not include:

1. a change in ownership of the source;
2. routine maintenance, repair, or replacement;
3. installation of air pollution control equipment; or
4. unless previously limited by enforceable permit conditions:
    a. an increase in production rate;
    b. an increase in the hours of operation; or
    c. use of an alternative fuel or raw material.

References

The following documents are referenced in this procedure:

- MAQ-024, "Personnel Training"
- MAQ-103, "Review of New or Modified Radioactive Air Emission Sources"
- MAQ-OP, "Quality Assurance Project Plan for the Operating Permit Project"
- MAQ-RRP, "Quality Assurance Project Plan for the Regulatory Review and Permitting Task"
- 40 CFR 50-93, "Code of Federal Regulation"
- 20.2 NMAC, "New Mexico Administrative Code"
- LIR404-10-01, "Air Quality Reviews"
- DOE Order 450.1, "Environmental Protection Program"
- DOE Order 5400.5, "Radiation Protection of the Public and the Environment"

Note

Actions specified within this procedure, unless preceded with "should" or "may," are to be considered mandatory guidance (i.e., "shall").

Review new and modified projects

Overview

Integrated Safety Management (ISM) requires that managers and supervisors identify and mitigate hazards associated with new activities and projects at the Laboratory, and that the work be authorized before any new activities begin. Line managers and supervisors or their designee can ensure that a review of air quality requirements is integrated into the ISM hazard control system with one or more of the following actions:

- Perform an air quality review using criteria in the Air Quality Reviews LIR404-10-01
- Contact MAQ for an air quality review
- Initiate a PR-ID or an equivalent method

MAQ's objective is to review new and changed Laboratory activities and projects to ensure that Clean Air Act requirements are met before the activity or project begins. In addition, MAQ uses this review to identify new and or modified sources of air emissions or direct penetrating radiation, to ensure compliance with DOE Orders 450.1 and 5400.5.

Identify air quality issues

The **air quality reviewer,** using the guidance developed in the "Quality Assurance Project Plan for the Regulatory Review and Permitting Task" (QAPP), reviews the project information that is provided in the project summary/profile or that is collected by contacting the responsible personnel. At a minimum, it is necessary to know the types of chemicals and the associated quantities, pieces of equipment, processes, and process rates and capacities that are involved.

Each of the applicability evaluations is described in the following blocks.

Review new and modified projects, continued

Review criteria

The **air quality reviewer** performs an applicability evaluation of the following:

- 20.2.72 NMAC – Construction Permits
- 20.2.70 NMAC – Operating Permits
- 20.2.73 NMAC – Notice of Intent and Emissions Inventory Requirements
- 40 CFR 61 Subpart H – Radionuclide National Emission Standard for Hazardous Air Pollutants (Rad-NESHAP)
- 20.2.60 NMAC - Open Burning
- 20.2.65 NMAC – Smoke Management
- 40 CFR 61 Subpart C - Beryllium NESHAP
- 40 CFR 61 Subpart M - Asbestos NESHAP
- Regulated chemicals and associated requirements
- Additional Clean Air Act (CAA) requirements
- DOE Orders 450.1 and 5400.5

Identify 20.2.72 NMAC issues

The **air quality reviewer** identifies the applicable source-specific requirements in 20.2.72 NMAC. These requirements may include permitting or exemption notification to NMED. To determine the requirements under 20.2.72 NMAC, the **air quality reviewer** performs the actions described in the flow chart in Attachment 1. The **air quality reviewer** also identifies applicable requirements of Subpart IV of 20.2.72 NMAC permits for Toxic Air Pollutant Emissions.

Identify 20.2.70 NMAC issues

The **air quality reviewer** identifies necessary revisions to the Title V Operating Permit regarding new or changed process, activity, or equipment. The **air quality reviewer** also determines and documents when a new or changed process, activity, or equipment qualifies as a Title V Operating Permit Insignificant or Trivial Activity.

Indentify 20.2.73 NMAC issues

The **air quality reviewer** assesses whether or not the source needs to be added or removed from the annual emissions inventory and whether a Notice of Intent (NOI) should be filed.

Identify Rad-NESHAP issues

Refer to procedure MAQ-103.

Review new and modified projects, continued

Identify Open Burning issues	The **air quality reviewer** identifies planned open burning activities, identifies if an applicable permit exists, if the activity fits under the permit by rule (20.2.60 NMAC or 20.2.65 NMAC), or if it requires permitting under 20.2.72 NMAC.
Identify beryllium NESHAP issues	The **air quality reviewer** identifies planned beryllium machining activities, identifies if an applicable permit exists, or if a new permit is potentially needed. If a permit exists, the **air quality reviewer** determines if the proposed work requires a permit revision or modification. The **air quality reviewer** also needs to determine if the project is a modification under the beryllium NESHAP regulations. Further, the proposed work should be evaluated for applicability under 20.2.72 NMAC.
Identify asbestos NESHAP issues	The **air quality reviewer** identifies any potential asbestos disturbances, asbestos containing material disturbances, major building renovations, electrical upgrades, or demolition activities. The **air quality reviewer** also identifies the potential need for reporting and informs MAQ personnel responsible for the asbestos reporting.
Identify regulated chemicals	The **air quality reviewer** evaluates the chemicals involved to identify applicable regulatory requirements. Requirements may be applicable to chemicals regulated as volatile organic compounds (VOCs), hazardous air pollutants (HAPs), toxic air pollutants (TAPs) regulated under 20.2.72 NMAC, toxics and flammables listed under Section 112(r) of the Clean Air Act, and toxic chemicals included in the Emergency Planning and Community Right-to-Know Act (EPCRA). The **air quality reviewer** evaluates the proposed chemical usage against the Operating Permit Limits for LANL. Additional requirements may also be applicable for some chemicals used.

Review new and modified projects, continued

Identify additional CAA issues

The **air quality reviewer** is responsible for the identification of additional Clean Air Act requirements. Some commonly applicable requirements include, but are not limited to, the following:

- Ozone Depleting Substance phase out, service, disposal, and inventory requirements (Title VI of the Clean Air Act)
- New Source Performance Standards for Volatile Organic Liquid Storage Vessels (40 CFR 60 Subpart Kb)
- New Source Performance Standards for Small Industrial - Commercial – Institutional Steam Generating Units (40 CFR 60 Subpart Dc)
- Opacity limits (20.2.61 NMAC – Control of Smoke and Visible Emissions)
- Reporting and emissions tracking for degreasers (40 CFR 63 Subpart T)

Refer to the statutory requirements that have been summarized in the 20.2.70 NMAC Operating Permit Application for the Laboratory. Using the statutory requirements listed in the application identify all requirements potentially applicable to the project. In addition, consider all new state and federal requirements that may be applicable and not documented in the application.

Identify new or modified sources of direct penetrating radiation

The **air quality reviewer** identifies new and/or modified sources of direct penetrating radiation by performing a search for "neutron" or "gamma" in the project profile. If these terms are found, the **air quality reviewer** provides the project information to the Direct Penetrating Radiation (DPRNET) team leader. The new or modified source is reviewed by the DPRNET team leader for:

- Monitoring requirements specified in DOE Order 450.1
- Compliance with the DOE Order 5400.5 100 mrem public dose limit
- Public dose ALARA considerations.

Documenting the response

Write air quality review

The **air quality reviewer** prepares a written air quality review (AQR) that consists of a summary of the new or modified project, the results or assessment of the applicable requirements, any outstanding or unresolved issues, and key database fields that will facilitate the ability to query the AQR records. Check boxes are database fields that identify specific air quality issues and are used as a query tool for monthly reporting. The review should clearly communicate the regulatory requirements, actions that must be taken to ensure and maintain compliance, and the assistance that is available from MAQ. The **air quality reviewer** should work closely with MAQ subject matter experts (SMEs) to ensure that the applicable air quality issues are addressed.

Resolve air quality issues

The **air quality reviewer** informs the **Team Leader** and other subject matter experts of the applicable issues as they are identified. The **Team Leader** delegates air quality issues to qualified project personnel or subject matter experts for resolution as described in the MAQ-RRP. The following tasks may be delegated:

- prepare permit applications
- prepare notifications
- complete permit revisions and modifications
- develop compliance programs
- ensure compliance with existing permit conditions
- update the emissions inventory
- maintain regulatory compliance

Summary

The **air quality reviewer** summarizes all the information relevant to identifying the air quality issues while ensuring the scope of the project is completely represented. It is especially important that any inconsistencies are documented and resolved. All relevant information collected should be included.

Assessment

The **air quality reviewer** summarizes applicable, or in some cases pontentially applicable, requirements. The database includes some of the most frequent air quality issues. The database also includes the flexibility to address additional air quality issues through the Comment (unassigned to PHC or Historical) field.

Documenting the response, continued

Populate database fields

The database is a tool to be used in documenting the applicable air quality regulations. It is incumbent on the **air quality reviewer** to ensure that the regulatory drivers have been appropriately identified. Upon making these determinations, concerning which air quality regulations are applicable, the **air quality reviewer** checks/populates applicable fields in the Integrated New Project Review (INPR) database. This information includes, but is not limited to:

- project title
- project summaryapplicable permit holds/checkpoints
- contact information
- project location.

Enter additional information

In addition to populating the above information, the **air quality reviewer** identifies additional air quality issues associated with the project by populating these fields:

- **Monitoring Alterations** – Check when the project involves/affects or potentially involves/affects monitored rad stacks, or compliance monitoring activities.
- **Chemical Concerns** – Check when the project involves, uses or has the potential to use regulated chemicals. If this item is selected then the type of regulated chemicals must be itemized using the "Chemicals" database fields.
- **Title V Operating Permit** – Check when the project causes changes or requires update to the Title V Operating Permit. If this item is selected then the Title V source(s) must be itemized using the "Title V" database fields.
- **0.1 mrem/yr Exemption** – Check when the project meets the 0.1 mrem/yr exemption or qualifies as new construction and requires reporting to the EPA.
- **0.1 mrem Report Year** – Populate the year that the project got/or should be reported to the EPA in the annual Rad NESHAP report.
- **Holds/Checkpoints –** Check as appropriate when the project's scope includes work that meets the criteria set forth in one of the predetermined holds/checkpoints. Further, the **air quality reviewer** must determine whether or not there are other air quality issues or regulatory requirements. The predetermined holds/checkpoints should not be considered as an all inclusive list.

Documenting the response, continued

Obtain technical review	The **air quality reviewer** requests a technical review of the AQR and any applicable calculations from the Team Leader and/or other subject matter experts. The **technical reviewer** checks for technical accuracy and completeness of the AQR and the calculations, makes or requests necessary changes, and resolves comments with the **air quality reviewer**.
Submit air quality review	Upon resolution of any comments, **air quality reviewer** sends the air quality review to the personnel that requested the review and/or submits it through the PR-ID system. The **air quality reviewer** should notify the subject matter experts within MAQ of the air quality issues associated with the review. This notification can be initiated by creating a PDF file with the database and sending via email.
Records management	**MAQ administrative personnel**, upon receipt of supporting documentation, ensures appropriate labeling and records management of hard copy documentation.
Review records	Periodically, the **air quality reviewer** and/or **MAQ administrative personnel** review the records (hard copy) for completeness.
Generate summary reports	Upon the request of appropriate **team leaders**, the **air quality reviewer, SME** and/or **administrative personnel** should generate periodic summary reports of any requested AQRs. Summary reports have been requested for Rad-NESHAP, asbestos, environmental surveillance, refrigerants, and neutron and gamma sources.

Database Maintenance and Review

Database maintenance and review

When regulatory drivers and requirements change update the database fields accordingly. The **air quality reviewer** reviews all Permit Hold/Checkpoints and other pre-populated database fields to ensure that the fields accurately represent the current status of the regulatory drivers and requirements. If any database field is found unrepresentative of the current status of regulatory drivers and requirements, then the **air quality reviewer** must effect the appropriate changes.

Records resulting from this procedure

Records

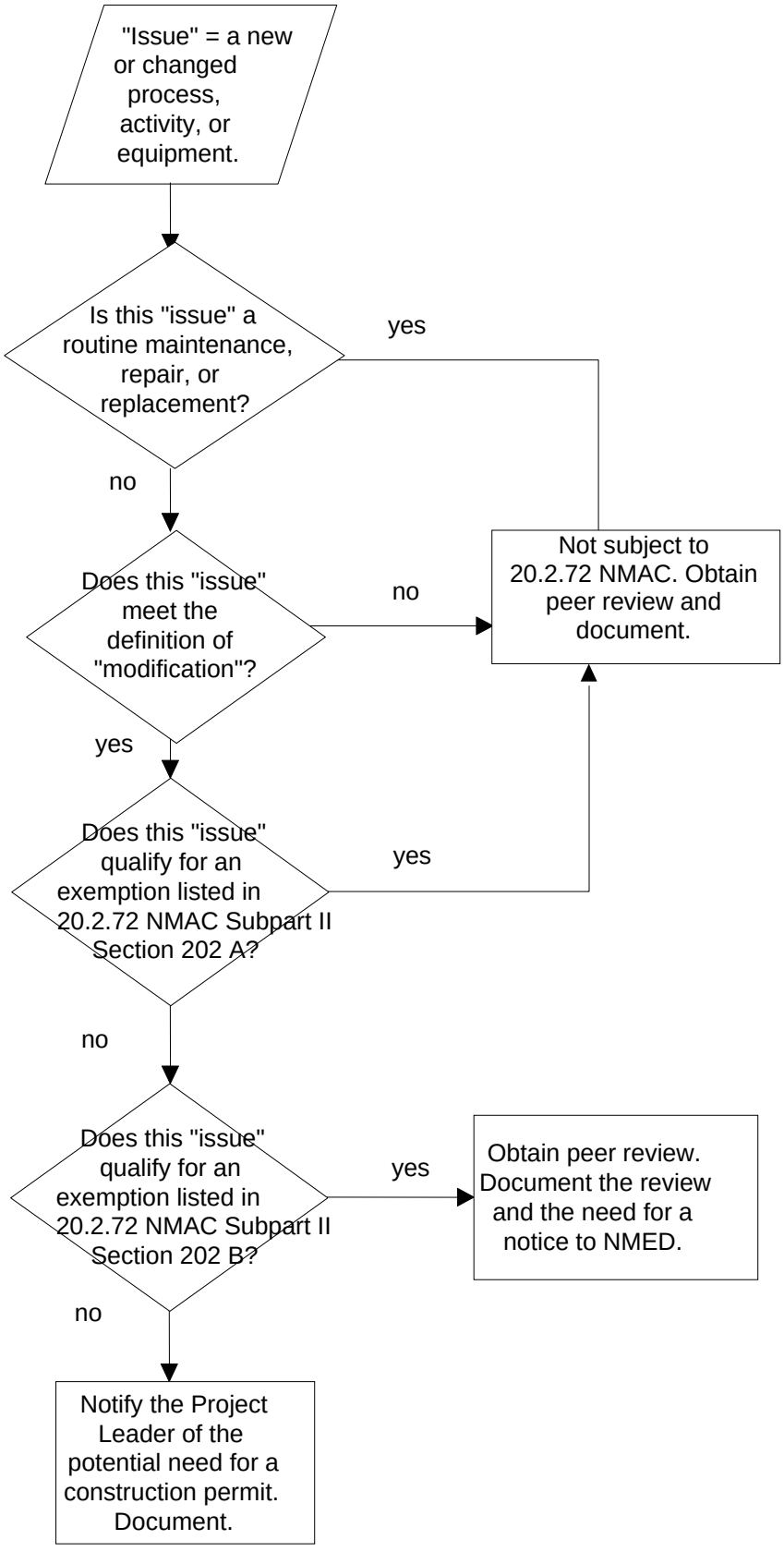
The following records generated as a result of this procedure must be submitted **at the time of completion** as records to the records coordinator:

- final AQR
- documentation of the technical review(s)
- calculations and modeling results
- background documentation and/or correspondence generated or requested

It is not necessary to include a copy of the PR-ID profile.

Click here to record “self-study” training to this procedure.

FLOW CHART OF NPR PROCESS



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